

In The Claims:

Please amend the claims as follows. This claim set is to replace all prior versions.

Listing Of The Claims:

1. (currently amended) A method of operating a data network between a routing gateway for a subscriber and a data service provider providing a data service wherein the routing gateway is at a customer premises remote from the data network and wherein the data service provider is remote from the data network, the method comprising:

receiving at the data network from the data service provider an identification of the routing gateway, an identification of the data service provider, and data flow characteristics of the data service for a session of the routing gateway using the data service provided by the data service provider wherein the data service provider is remote from the data network;

responsive to receiving at the data network the identification of the routing gateway, the identification of the data service provider, and the data flow characteristics for the data service, saving the data flow characteristics of the data service for the routing gateway at the data network; and

forwarding the data flow characteristics of the data service from the data network to the routing gateway at the customer premises remote from the data network.

2. (original) A method according to Claim 1 wherein the routing gateway is coupled to the data network via a digital subscriber line and wherein the identification of the routing gateway comprises a digital subscriber line identification.

3. (currently amended) A method according to Claim 1 wherein the data flow characteristics of the data service include a bandwidth characterization for the data service and a priority characterization for the data service both received from the data service provider, and wherein forwarding the data flow characteristics to the routing gateway includes forwarding the bandwidth characterization and the priority characterization to the routing gateway at the customer premises remote from the data network.

4. (original) A method according to Claim 1 wherein receiving further includes receiving an authorization code for the data service, the method further comprising:
before saving the data flow characteristics, validating the authorization code.

5. (original) A method according to Claim 1 wherein saving the data flow characteristics at the data network comprises creating an application flow control record for the routing gateway.

6. (original) A method according to Claim 1 wherein saving the data flow characteristics comprises saving the data flow characteristics at first and second databases within the data network.

7. (original) A method according to Claim 6 wherein the first database is associated with a concentrator and the second database is associated with a service manager.

8. (original) A method according to Claim 1 wherein receiving is preceded by:
receiving a request from the routing gateway for a session using the data service provided by the data service provider; and
forwarding the request from the routing gateway to the data service provider.

9. (original) A method according to Claim 8 further comprising:
providing an interconnection between the routing gateway and the data service provider in accordance with the data flow characteristics to thereby support a session of the routing gateway using the data service provided by the data service provider.

10. (original) A method according to Claim 9 further comprising:
deleting the data flow characteristics saved at the data network for the session of the routing gateway using the data service provided by the data service provider; and

terminating the interconnection between the routing gateway and the data service provider to thereby terminate the session of the routing gateway using the data service provided by the data service provider.

11. (original) A method according to Claim 10 further comprising:
before deleting the data flow characteristics, receiving a request from the data service provider to delete the data flow characteristics for the session of the routing gateway using the data service, wherein the data flow characteristics are deleted responsive to receiving the request.

12. -- 22. (canceled).

23. (currently amended) A data network providing a data connection between a routing gateway for a subscriber and a data service provider providing a data service wherein the routing gateway is at a customer premises remote from the data network and wherein the data service provider is remote from the data network, the data network comprising:

a first transceiver at the data network configured to receive from the data service provider an identification of the routing gateway, an identification of the data service provider, and data flow characteristics of the data service for a session of the routing gateway using the data service provided by the data service provider wherein the data service provider is remote from the data network;

a memory at the data network configured to save the data flow characteristics of the data service for the routing gateway at the data network responsive to receiving the identification of the routing gateway, the identification of the data service provider, and the data flow characteristics for the data service; and

a second transceiver at the data network configured to forward the data flow characteristics of the data service to the routing gateway at the customer premises remote from the data network.

24. (original) A data network according to Claim 23 wherein the routing gateway is coupled to the data network via a digital subscriber line and wherein the identification of the routing gateway comprises a digital subscriber line identification.

25. (currently amended) A data network according to Claim 23 wherein the data flow characteristics of the data service include a bandwidth characterization for the data service and a priority characterization for the data service both received from the data service provider, and wherein forwarding the data flow characteristics to the routing gateway includes forwarding the bandwidth characterization and the priority characterization to the routing gateway at the customer premises remote from the data network.

26. (original) A data network according to Claim 23 wherein the first transceiver is further configured to receive an authorization code for the data service, and wherein the memory is further configured to validate the authorization code before saving the data flow characteristics.

27. (original) A data network according to Claim 23 wherein the memory is further configured to save the data flow characteristics at the data network as an application flow control record for the routing gateway.

28. (original) A data network according to Claim 23 wherein the memory is further configured to save the data flow characteristics at first and second databases within the data network

29. (original) A data network according to Claim 28 wherein the first database is associated with a concentrator and the second database is associated with a service manager.

30. (original) A data network according to Claim 23 wherein the second transceiver is further configured to receive a request from the routing gateway for a session using the data

service provided by the data service provider, and wherein the first transceiver is further configured to forward the request from the routing gateway to the data service provider wherein the first transceiver is still further configured to receive the identification of the routing gateway, the identification of the data service provider, and the data flow characteristics of the data service for a session of the routing gateway after forwarding the request from the routing gateway.

31. (original) A data network according to Claim 30 wherein the first and second transceivers are further configured to provide an interconnection between the routing gateway and the data service provider in accordance with the data flow characteristics to thereby support a session of the routing gateway using the data service provided by the data service provider.

32. (original) A data network according to Claim 31 wherein the memory is further configured to delete the data flow characteristics saved at the data network for the session of the routing gateway using the data service provided by the data service provider, and wherein the first and second transceivers are further configured to terminate the interconnection between the routing gateway and the data service provider to thereby terminate the session of the routing gateway using the data service provided by the data service provider.

33. (original) A data network according to Claim 32 wherein the first transceiver is further configured to receive a request from the data service provider to delete the data flow characteristics for the session of the routing gateway using the data service, and wherein the memory is further configured to delete the data flow characteristics responsive to receiving the request to delete the data flow characteristics.

34. – 44. (canceled).

45. (currently amended) A computer program product configured to operate a data

network between a routing gateway for a subscriber and a data service provider providing a data service wherein the routing gateway is at a customer premises remote from the data network and wherein the data service provider is remote from the data network, the computer program product ~~comprising~~ consisting of a computer ~~useable~~ readable storage medium having computer-readable program code embodied in the medium, wherein the computer readable storage medium includes an electronic, magnetic, optical, electromagnetic, infrared, or semiconductor system, apparatus, device, or medium, the computer-readable program code comprising:

computer-readable program code that is configured to receive from the data service provider at the data network an identification of the routing gateway, an identification of the data service provider, and data flow characteristics of the data service for a session of the routing gateway using the data service provided by the data service provider wherein the data service provider is remote from the data network;

computer-readable program code that is configured to save the data flow characteristics of the data service for the routing gateway at the data network responsive to receiving the identification of the routing gateway, the identification of the data service provider, and the data flow characteristics for the data service; and

computer-readable program code that is configured to forward the data flow characteristics of the data service to the routing gateway at the customer premises remote from the data network.

46. – 47. (canceled).

48. (currently amended) A computer program product according to Claim 45 wherein the data flow characteristics of the data service include a bandwidth characterization for the data service and a priority characterization for the data service both received from the data service provider, and wherein forwarding the data flow characteristics to the routing gateway includes forwarding the bandwidth characterization and the priority characterization to the routing gateway at the customer premises remote from the data network.

49. (canceled)

50. (previously presented) A computer program product according to Claim 45 wherein saving the data flow characteristics comprises saving the data flow characteristics at first and second databases within the data network.

51. (previously presented) A computer program product according to Claim 50 wherein the first database is associated with a concentrator and the second database is associated with a service manager.

52. (previously presented) A method according to Claim 3 wherein the routing gateway is coupled to the data network via a digital subscriber line, wherein the identification of the routing gateway comprises a digital subscriber line identification, and wherein forwarding the bandwidth characterization and the priority characterization comprises forwarding the bandwidth characterization and the priority characterization over the digital subscriber line to the routing gateway at the customer premises.

53. (canceled)

54. (previously presented) A data network according to Claim 25 wherein the routing gateway is coupled to the data network via a digital subscriber line, wherein the identification of the routing gateway comprises a digital subscriber line identification, and wherein forwarding the bandwidth characterization and the priority characterization comprises forwarding the bandwidth characterization and the priority characterization over the digital subscriber line to the routing gateway at the customer premises.

55. (canceled)

56. (previously presented) A computer program product according to Claim 48 wherein the routing gateway is coupled to the data network via a digital subscriber line, wherein the identification of the routing gateway comprises a digital subscriber line identification, and wherein forwarding the bandwidth characterization and the priority characterization comprises forwarding the bandwidth characterization and the priority characterization over the digital subscriber line to the routing gateway at the customer premises remote from the data network.

57. (canceled)

58. (new) A method according to Claim 1 wherein the data service provider comprises an application data service provider located remote from the data network, wherein the data service comprises an application data service, and wherein the data flow characteristics of the application data service include a bandwidth characterization for the application data service and a priority characterization for the application data service both received from the application data service provider, the method further comprising:

providing an interconnection between the routing gateway and the application data service provider through the data network in accordance with the data flow characteristics to thereby support a session of the routing gateway using the application data service provided by the application data service provider;

after providing the interconnection and completing the session, deleting the data flow characteristics saved at the data network for the session of the routing gateway using the application data service provided by the application data service provider; and

after providing the interconnection and completing the session, terminating the interconnection between the routing gateway and the application data service provider to thereby terminate the session of the routing gateway using the application data service provided by the application data service provider.

59. (new) A method according to Claim 58 wherein the application data service comprises gaming, video on demand, and/or access to a virtual private network.

60. (new) A data network according to Claim 23:
wherein the data service provider comprises an application data service provider located remote from the data network;
wherein the data service comprises an application data service;
wherein the data flow characteristics of the application data service include a bandwidth characterization for the application data service and a priority characterization for the application data service both received from the application data service provider;
wherein the first and second transceivers are configured to provide an interconnection between the routing gateway and the application data service provider through the data network in accordance with the data flow characteristics to thereby support a session of the routing gateway using the application data service provided by the application data service provider;
wherein after providing the interconnection and completing the session, the memory is configured to delete the data flow characteristics saved at the data network for the session of the routing gateway using the application data service provided by the application data service provider; and
wherein after providing the interconnection and completing the session, the first and second transceivers are configured to terminate the interconnection between the routing gateway and the application data service provider to thereby terminate the session of the routing gateway using the application data service provided by the application data service provider.

61. (new) A data network according to Claim 60 wherein the application data service comprises gaming, video on demand, and/or access to a virtual private network.